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10/823,405	04/13/2004	Katsunori Takahashi	9333/372	3235

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EXAMINER	
KARIMI, PEGEMAN	
ART UNIT	PAPER NUMBER
2629	
MAIL DATE	DELIVERY MODE
09/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/823,405	TAKAHASHI, KATSUNORI	
	Examiner	Art Unit	
	Pegeman Karimi	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06/07/2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *04/13/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment filed on 06/07/2007 has been entered and considered by examiner.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Goldenberg (U.S. Patent 6,636,197).

As to claim 1, Goldenberg discloses a data processing system (200) comprising:

a display device (14) for displaying at least one display screen element (22);

an input device (26) for applying a variable tactile sensation to a user (col. 6, lines 56-61) and generating input data based upon input from a user (col. 5, lines 30-34 & lines 49-56); and

a processing device (202) for generating display screen data (i.e. A, E, or 22, col. 9, lines 35-38) comprising data for each display screen element (col. 20, lines 50-55)

and a tactile sensation control pattern (i.e. position, motion, and rotation, col. 9, lines 65-67 & col. 15, lines 62 through col. 16, line 41),

the processing device sending the display screen data (i.e. A, E, and 22) to the display device (col. 9, lines 35-38) and controlling the tactile sensation (haptic feedback) applied by the input device (26) in accordance with the tactile sensation control pattern (col. 2, lines 30-40 and col. 15, lines 62 through col. 16, line 41);

wherein the processing device (202) receives input data from the input device, calculates a relationship between the input data and the tactile sensation (col. 9, lines 13-17) in accordance with the arrangement of at least one display element (22) on the display screen at the time that the display screen data is sent to the display device (col. 2, lines 30-40 & col. 15, lines 62 through col. 16, line 41) and

stores (206) the calculated relationship as a tactile sensation control pattern (i.e. position, motion, or degree of freedom, col. 9, lines 30-35), so that the tactile sensation applied to the user is based upon the input data (col. 9, lines 13-17 and col. 6, lines 56-61).

As to claims 2 and 14, Goldenberg teaches a data processing system, wherein the processing unit connects tactile sensation patterns in accordance with the arrangement of the display elements on the display screen at the time that the display screen data is sent to the display device (col. 2, lines 30-40 & col. 9, lines 65-67 & col. 10, lines 1-2), and

stores the connected tactile sensation patterns as the tactile sensation control pattern (i.e. position, motion, or rotation, col. 9, lines 30-35), the tactile sensation patterns indicate the relationship between the input data and the tactile sensation (col. 9, lines 65-67 & col. 10, lines 1-2) and are previously determined according to the types of the display elements (col. 2, lines 35-40 and col. 5, lines 57-67).

As to claims 3 and 15, Goldenberg teaches a data processing system, wherein the display elements comprise display objects for accepting an operation selected by the user (col. 5, lines 64-67 & col. 20, lines 45-55) and a space between the display objects, the space being a portion on the display screen where the display objects are not present (col. 2, lines 30-32).

As to claims 4 and 16, Goldenberg teaches a data processing, wherein the input device comprises an operation unit rotatable by the user (28) and

an actuator (216) for applying a force to the operation unit corresponding to the direction of rotation of the operation unit (col. 10, lines 11-15), the tactile sensation control pattern indicates a relationship between the rotational angle of the operation unit (12) and the force applied to the operation unit, and the processing device controls the force applied by the actuator in accordance with the tactile sensation control pattern (col. 13, line 67, & col. 14, lines 1-3).

As to claims 5 and 17, Goldenberg teaches a data processing system; wherein the tactile sensation applied to the user is based upon the input data from the input

device, which indicates the positions of the display elements within a display range (col. 6, lines 56-61).

As to claim 6, Goldenberg teaches the input device (34) is a pointing device for inputting coordinates on the display screen (Fig. 1 shows a list display where "K" is located at x=3 and y=2, when the knob is pushed up it moves the pointer to location x=3 and y=3, col. 5, lines 29-34 and lines 53-56).

As to claim 7, Goldenberg teaches a data processing system, wherein the input device is a haptic commander (col. 6, lines 56-60).

As to claim 8, Goldenberg discloses a method for applying a variable tactile sensation to a user through an input device (col. 6, lines 56-61), the method comprising:

generating display screen data (col. 9, lines 35-38) comprising data for at least one display element (22);

sending the display screen data to a display device (col. 9, lines 35-38);

calculating a relationship between input data from the input device and the tactile sensation (col. 9, lines 13-17) in accordance with an arrangement of at least one display element on a display screen at the time that the display screen data is sent to the display device (col. 2, lines 30-40 & col. 9, lines 65-67 & col. 10, lines 1-2);

storing the calculated relationship as a tactile sensation control pattern (col. 9, lines 30-35); and

controlling the tactile sensation based upon the input data from the input device, in accordance with the stored tactile sensation control pattern (col. 2, lines 30-40), whereby a variable tactile sensation is applied to the user through the input device (col. 6, lines 56-61).

As to claim 9, Goldenberg teaches a tactile sensation control pattern is calculated by connecting tactile sensation patterns in accordance with the arrangement of the display elements on the display screen at the time that the display screen data is sent to the display device (col. 2, lines 30-40 & col. 9, lines 65-67 & col. 10, lines 1-2),

the tactile sensation patterns indicating the relationship between the input data and the tactile sensation (col. 9, lines 65-67 & col. 10, lines 1-2) and are previously determined according to the types of the display element (col. 2, lines 35-40 and col. 5, lines 57-67).

As to claim 10, Goldenberg teaches a display elements (14) comprise display objects (22) for accepting an operation selected by the user (col. 5, lines 64-67) and a space between the display objects, the space being a portion in the display screen where the display objects are not present (col. 2, lines 30-32 & col. 20, lines 45-55).

As to claim 11, Goldenberg teaches an input device comprises an operation unit (26) rotatable by the user (28) and an actuator for applying a force to the operation unit corresponding to the direction of rotation of the operation unit (col. 10, lines 11-15), and the tactile sensation control pattern indicates a relationship between the rotational angle

of the operation unit and the force applied by the actuator (col. 13, line 67, & col. 14, lines 1-3).

As to claim 12, Goldenberg clearly teaches the tactile sensation applied to the user is based upon the input data from the input device which indicates positions of the display elements within a display range (col. 6, lines 56-61).

As to claim 13, Goldenberg discloses a computer program stored on a storage medium, which is read and executed by a computer system (col. 11, lines 48-53) comprising:

a display device (14) and

an input device (26) for applying a variable tactile sensation to a user (col. 6, lines 56-61),

the computer program directs the computer system to generate display screen data (col. 9, lines 35-38) comprising data for at least one display element (col. 20, lines 50-55), send the display screen data to the display device (col. 9, lines 35-38),

calculate a relationship between input data from the input device (col. 9, lines 13-17) and the tactile sensation in accordance with an arrangement of at least one display element on a display screen at the time that the display screen data is sent to the display device (col. 2, lines 30-40 & col. 9, lines 65-67 & col. 10, lines 1-2), and

store the calculated relationship as a tactile sensation control pattern (col. 9, lines 30-35), so that the tactile sensation being applied to the user is based upon the input

data received from the input device, in accordance with the tactile sensation control pattern (col. 6, lines 56-61).

As to claim 19, Goldenberg discloses a storage medium (206), which stores a computer program, which is read and executed by a computer system (202, col. 9, lines 30-32) comprising:

a display device (14) and

an input device (26) for applying a variable tactile sensation to a user (col. 6, lines 56-61), wherein the computer program directs the computer system to generate display screen data (col. 9, lines 35-38) comprising data for at least one display element (col. 20, lines 50-55), send the display screen data to the display device (col. 9, lines 35-38), calculate a relationship between input data from the input device and the tactile sensation in accordance with an arrangement of at least one display element (22) on a display screen at the time that the display screen data is sent to the display device (col. 2, lines 30-40, col. 9, lines 65-67, col. 10, lines 1-2),

store the calculated relationship as a tactile sensation control pattern (col. 9, lines 30-35), and control the tactile sensation based upon the input data from the input device, in accordance with the tactile sensation control pattern (col. 2, lines 30-40).

As to claim 20, Goldenberg teaches the computer system connects tactile sensation patterns in accordance with the arrangement of the display elements on the display screen (14) at the time that the display screen data is sent to the display device (col. 2, lines 30-40 & col. 9, lines 65-67 & col. 10, lines 1-2), and

stores the connected tactile sensation patterns as the tactile sensation control pattern (col. 9, lines 30-35), the tactile sensation patterns indicate the relationship between the input data and the tactile sensation (col. 9, lines 65-67 & col. 10, lines 1-2) and are previously determined according to the types of the display elements (col. 2, lines 35-40, col. 5, lines 57-67).

Response to Arguments

4. Applicant's arguments filed on 06/07/2007 have been fully considered but they are not persuasive.

Applicant argues that Goldenberg does not teach or suggest among other features, *calculating a relationship between the input data and the tactile sensation in accordance with the arrangement of at least one display element on the display screen at the time that the display screen data is sent to the display device.* Goldenberg clearly teaches calculating a relationship between the input data and the tactile sensation (force process, col. 9, lines 13-17, and col. 12, lines 1-4) in accordance with the arrangement of at least one display element on the display screen (e.g. audio, map, or temperature) at the time that the display screen data is sent to the display device (e.g. new menu selection), (col. 9, lines 64-67 and col. 6, lines 1-10).

On page 10, lines 23-24 through page 11, lines 1-3, applicant argues that Goldenberg does not teach or suggest among other features *that feedback associated with the rate of control mode is based upon an arrangement of display elements at the time that the screen data is sent to the display* (i.e. *that the rate control mode is not calculated when an un-displayed menu item is scrolled onto the display.*).

On page 11, lines 1-3 applicant argues that Goldenberg does not teach or suggest *that the rate control mode is not calculated when an un-displayed menu item is scrolled onto the display.* However, Goldenberg teaches that the rate control mode is calculated when an un-displayed menu item (A8-A20) is scrolled onto the display (i.e. at the time that the display screen data is sent to the display screen), (col. 21, lines 62-67 and col. 22, lines 1-3). Furthermore, Golgenberg teaches that "a jolt or detent output force can be output on the knob when each of the undisplayed items is scrolled onto the display screen" (col. 2, lines 42-44). The microprocessor (202) calculates appropriate forces from sensor signals, time signals, and force processes selected in accordance with a host command, and output appropriate control signals to the actuator (col. 9, lines 13-17)

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Inquiries

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pegeman Karimi whose telephone number is (571) 270-1712. The examiner can normally be reached on Monday-Thursday 8:00am - 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh Nguyen can be reached on (571) 272-7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Pegeman Karimi
08/24/2007

CHANH D. NGUYEN
SUPERVISORY PATENT EXAMINER